



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,472	09/10/2003	Hidekazu Miyairi	740756-2650	4070

22204 7590 03/28/2006

NIXON PEABODY, LLP  
401 9TH STREET, NW  
SUITE 900  
WASHINGTON, DC 20004-2128

EXAMINER
----------

NGUYEN, PHILLIP

ART UNIT	PAPER NUMBER
----------	--------------

2828

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/658,472

Applicant(s)

MIYAIRI ET AL.

Examiner

Phillip Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1-2 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/10/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Acknowledgement***

1. Applicant has elected group I, claims 1-2, canceled claims 3-16, and also added new claims 17-20.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "an optical system" beam", "an entrance side optical system", and "an exit side optical system" which are not clear and believed to be incorrect. According to the specification and the drawing, it is believed that applicant intends to claim an optical beam splitter. The optical beam splitter by itself cannot be call an optical system.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2828

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilcox ('676).

With respect to claim 1, Wilcox discloses in Fig. 1 a laser apparatus comprising a laser oscillator 20; an optical system 30 for sampling a part of a laser beam emitted from the laser oscillator; an electric signal generator 70 for generating an electric signal that contains an energy fluctuation of the laser beam as a data using the part of the laser beam sampled; a light amount adjuster 60 for adjusting an energy of the laser beam emitted from the laser oscillator by changing a transmittance thereof and a signal processing unit 50 for subjecting the electric signal to a signal processing to calculate a frequency, an amplitude, and a phase of the energy fluctuation of the laser beam. It is noted that Wilcox discloses 50 as light intensity control device which may comprises high speed optical amplitude modulator such as Pockels cell, a Kerr cell, an electroabsorptive semiconductor device, a waveguide directional coupler modulator or any other type of device which will variably attenuate light energy in response to a variable electrical signal (col. 4, lines 1-15). It is inherent that Pockels cell modulate the amplitude, phase, and frequency of the energy fluctuation.

Wilcox further discloses that the attenuator can be adjusted by the result from the detected beam. It is inherent to have a driver to adjust /drive the adjuster (attenuator). See col. 5, lines 9-14.

With respect to claim 19, Wilcox discloses 19 a laser apparatus comprising: a laser oscillator 20, an optical system 30 for sampling a part of a laser beam emitted from the laser

Art Unit: 2828

oscillator; a sensor 70 for receiving the sampled laser beam and converting the sampled laser beam to an electric signal; a signal processing unit for processing the electric signal for calculating at least a frequency, an amplitude and a phase of an energy fluctuation of the laser beam; an attenuator 60 for attenuating a laser beam emitted from the laser oscillator by using the frequency, amplitude and the phase of the energy fluctuation of the laser beam calculated by the signal processing unit.

4. Claims 1 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wise ('530).

With respect to claim 1, Wise discloses in Fig. 1 a laser apparatus comprising a laser oscillator 2; an optical system 8 for sampling a part of a laser beam emitted from the laser oscillator; an electric signal generator 18 for generating an electric signal that contains an energy fluctuation of the laser beam as a data using the part of the laser beam sampled; a light amount adjuster 12 for adjusting an energy of the laser beam emitted from the laser oscillator by changing a transmittance thereof and a signal processing unit (gain adjustment circuit and amplifiers 20 and 25) for subjecting the electric signal to a signal processing to calculate a frequency, an amplitude, and a phase of the energy fluctuation of the laser beam.

With respect to claim 19, Wise discloses a laser apparatus comprising: a laser oscillator 2, an optical system 8 for sampling a part of a laser beam emitted from the laser oscillator; a sensor 18 for receiving the sampled laser beam and converting the sampled laser beam to an electric signal; a signal processing unit (gain adjustment circuit and amplifiers 20 and 25) for processing the electric signal for calculating at least a frequency, an amplitude and a phase of an energy fluctuation of the laser beam; an attenuator 60 for attenuating a laser beam emitted from the laser

Art Unit: 2828

oscillator by using the frequency, amplitude and the phase of the energy fluctuation of the laser beam calculated by the signal processing unit.

***Allowable Subject Matter***

5. Claim 20 is allowed.

Claims 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Communication Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Nguyen whose telephone number is 571-272-1947. The examiner can normally be reached on 9:00 AM - 6:00 PM.

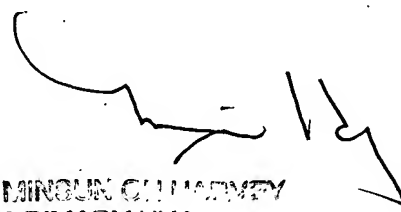
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY, can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pn

AU 2828

  
MIRGON CHAVEZ  
PRINCIPAL